

INTERNATIONAL SEARCH REPORT

International Application No

PCT/N02004/000242

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 E21B19/15 G05B19/4061 B25J9/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 E21B G05B B66C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 578 757 A (STARK) 25 March 1986 (1986-03-25) column 3, lines 50-53 column 4, line 11 - line 15 column 4, line 35 - line 43 column 5, line 35 - line 37 column 5, line 55 - line 62 column 6, line 34 - line 38	7,8
Y		1-6,8-14
Y	GB 2 205 463 A (HITACHI LTD.) 7 December 1988 (1988-12-07) page 14, line 11 - line 15 page 20, line 21 - page 21, line 5	1-6,8-14
A	GB 1 437 588 A (KRUPP GMBH) 26 May 1976 (1976-05-26) page 2, line 86 - line 97	2,5,11
	-/--	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

2 December 2004

Date of mailing of the international search report

08/12/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Rampelmann, K

INTERNATIONAL SEARCH REPORT

International Application No

PCT/N02004/000242

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 957 452 A (FUJITSU LTD.) 17 November 1999 (1999-11-17) paragraph '0055! -----	2
A	US 5 056 031 A (NAKANO ET AL.) 8 October 1991 (1991-10-08) column 6, line 47 - line 58 -----	2
A	DD 293 302 A (TU DRESDEN) 29 August 1991 (1991-08-29) abstract -----	2
A	US 4 613 849 A (SMITH ET AL.) 23 September 1986 (1986-09-23) abstract -----	1,7

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/NO2004/000242

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4578757	A	25-03-1986	SE 456048 B CA 1193727 A1 DE 3374378 D1 EP 0087198 A2 JP 1653330 C JP 3019924 B JP 58171615 A SE 8201149 A	29-08-1988 17-09-1985 17-12-1987 31-08-1983 30-03-1992 18-03-1991 08-10-1983 25-08-1983
GB 2205463	A	07-12-1988	JP 1008108 A JP 1966889 C JP 6094282 B	12-01-1989 18-09-1995 24-11-1994
GB 1437588	A	26-05-1976	DE 2341636 A1 DK 430574 A ES 429312 A1 FR 2240884 A1 IT 1019961 B JP 50063651 A NL 7410520 A NO 742837 A ,B, SE 400537 B SE 7410102 A	13-03-1975 14-04-1975 16-08-1976 14-03-1975 30-11-1977 30-05-1975 19-02-1975 17-03-1975 03-04-1978 18-02-1975
EP 0957452	A	17-11-1999	JP 3415438 B2 JP 11328233 A EP 0957452 A2 US 6452604 B1	09-06-2003 30-11-1999 17-11-1999 17-09-2002
US 5056031	A	08-10-1991	GB 2227106 A ,B JP 2224004 A JP 2826138 B2	18-07-1990 06-09-1990 18-11-1998
DD 293302	A	29-08-1991	DD 293302 A5	29-08-1991
US 4613849	A	23-09-1986	CA 1225448 A1 DE 3561831 D1 EP 0162797 A1 NO 851568 A	11-08-1987 14-04-1988 27-11-1985 24-10-1985